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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,988	07/21/2004	Maurizio Lualdi	2004_1151A	3370

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WENDEROTH, LIND & PONACK, L.L.P.
2033 K STREET N. W.
SUITE 800
WASHINGTON, DC 20006-1021

EXAMINER

BARKER, MATTHEW M

ART UNIT	PAPER NUMBER
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3662

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/501,988	LUALDI, MAURIZIO	
	Examiner	Art Unit	
	Matthew M. Barker	3662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-29, 31-33, and 35 is/are rejected.
- 7) ☒ Claim(s) 30 and 34 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed on 4/07/2006 have been fully considered but they are not persuasive. On page 8 of the remarks, a first argument was made that the Burkardt reference (5,634,378) does not teach or suggest base guides arranged side-by-side to one another. A second argument was made that the Burkhardt reference does not disclose or suggest a support guide that is oriented to direct a support structure along the base guides.

The first argument is not persuasive because Burkhardt shows in Figure 1, parallel base guides (24, 22) which are side-by-side with one another.

The second argument is not persuasive because Burkhardt discloses a support guide (60) that is oriented to direct a support structure (comprising 60, 68, 70, 72, 74, 76, 78) along the base guides (22,24). See column 2, lines 21-30.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 16-26, 31-33, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Burkhardt et al. ('378).

Regarding claim 16 and 32, in Figure 1 Burkhardt shows a position system for data acquisition comprising at least one antenna (66) passed over a surface to be surveyed comprising a plurality of base guides (22, 24) side by side, operable to be coupled to the surface (column 3, lines 1-15); a support structure (comprising 60, 68, 70, 72, 74, 76, 78), having at least one support guide (60) that engages with the plurality of base guides, the support guide is oriented to direct the support structure along the base guides (column 2, lines 21-30).

Regarding claim 17, Burkhardt shows that the plurality of guides (22, 24) are linear.

Regarding claims 18 and 20, Burkhardt discloses that the plurality of guides are positioned on a supporting layer of flexible material with a lower abrasive surface ("vacuum cups", see column 3, lines 10-11) so that it does not move once it is positioned.

Regarding claim 19, Burkhardt discloses the claimed upper surface on which the structure can advance (Abstract, lines 1-4).

Regarding claim 21, Burkhardt shows the guides are spaced from each other at a preset distance (Figure 1).

Regarding claim 22, Burkhardt discloses that a measuring system (66) is placed above the structure (60)(see Figure 1) and the plurality of guides (22,24) are positioned at a preset distance proportional to a working wavelength.

Regarding claim 23, Burkhardt shows a motor portion (80) on one of the plurality of guides. The motor on guide (22) is an identification element to identify the guides.

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Regarding claim 24, Burkhardt discloses that the positioning system may permit 3-D Georadar acquisitions (column 1, lines 50-60).

Regarding claim 25, Burkhardt shows a stopping device (42) at at least one extremity of the plurality of guides.

Regarding claim 26, virtually any material will flex, and therefore the plurality of guides (22,24) of Burkhardt are considered flexible.

Regarding claims 31 and 35, Burkhardt discloses the claimed flexible supporting layer (vacuum cups), and shows the claimed recess formed between the parallel, adjacent pair of base guides (22, 24), with the support guide (60) fitted into the recess. See Figure 1.

Regarding claim 33, Burkhardt discloses that the data acquisition system comprises a transmitter and receiver (column 3, line 66).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 24 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burkhardt.

Regarding claim 24, Burkhardt does not explicitly disclose that the positioning system permits 3 dimensional Georadar acquisitions. However, Burkhardt does

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suggest that any suitable scanner may be used (column 1, lines 50-51). In light of this teaching, it would have been obvious to use a scanner with the invention of Burkhardt to provide imaging of underground objects.

Regarding claim 27, Burkhardt does not disclose the use of glue in the invention. However, the use of glue would be obvious to apply the plurality of guides to a surface in the invention of Burkhardt, as glue is a well-known means of attaching objects.

Regarding claims 28-29, Burkhardt does not disclose the use of corrugated cardboard in the invention. However, the use of corrugated cardboard would be obvious as a construction material in the invention of Burkhardt, as it is well known that cardboard provides both strength and flexibility at a low cost.

Allowable Subject Matter

6. Claims 30 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

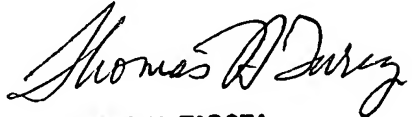
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew M. Barker whose telephone number is (571)272-3103. The examiner can normally be reached on M-F, 8:00 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on (571)272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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THOMAS H. TARCZA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600